

DOCUMENT RESUME

ED 106 772

95

CS 001 802

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TITLE Descriptions of the Structure and Ordering of Language in the Mod 2 Kindergarten Stories. Technical Note No. 2-72-34.
INSTITUTION Southwest Regional Laboratory for Educational Research and Development, Los Alaritos, Calif.
SPONS AGENCY Office of Education (DHEW), Washington, D.C.
REPORT NO SWRL-TN-2-72-34
PUB DATE Aug 72
NOTE 102p.

EDRS PRICE MF-\$0.76 HC-\$5.70 PLUS POSTAGE
DESCRIPTORS Early Childhood Education; *Educational Research; Instructional Materials; Kindergarten Children; *Language Development; *Reading Comprehension; Reading Skills; *Sentence Structure; Structural Analysis; *Syntax
IDENTIFIERS *Mod 2 Kindergarten Stories

ABSTRACT

A detailed description of the syntax in the Southwest Regional Laboratory (SWRL) Mod 2 Kindergarten stories is presented to aid in the formulation of comprehension assessment and instruction. The lexicon and surface structures of the sentences appearing in the stories were classified and tabled in terms of types of elements and functions. The new words and structural descriptions in each story were identified and tabled in order of introduction in the stories. Use of the tables in identifying, comparing, or constructing sentences within the lexical and syntactic constraints of the Mod 2 Kindergarten stories is discussed. (Author)

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SOUTHWEST REGIONAL LABORATORY TECHNICAL NOTE

DATE: August 17, 1972

NO: TN-2-72-34

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DESCRIPTION OF THE STRUCTURE AND ORDERING OF LANGUAGE IN THE MOD 2 KINDERGARTEN STORIES

Laila Fiege-Kollmann

ABSTRACT

A detailed description of the syntax in the Mod 2 Kindergarten stories is presented to aid in the formulation of comprehension assessment and instruction. The lexicon and the surface structures of the sentences appearing in the stories were classified and tabled in terms of types of elements and functions. The new words and structural descriptions in each story were identified and tabled in order of introduction in the stories. Use of the tables in identifying, comparing, or constructing sentences within the lexical and syntactic constraints of the Mod 2 Kindergarten stories is discussed.

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INTRODUCTION

This paper presents the results of a detailed linguistic analysis of the sentence structures and the lexicon used in the SWRL Mod 2 Kindergarten (Mod 2 Kg) stories. The results are intended to aid the formulation of comprehension assessment instructions for the Mod 2 Kg program. The results should prove useful for the identification of structures and/or such lexical items which might cause comprehension difficulties, and for the development of instruction dealing with such difficulties.

According to Bessemer and Jenkins (1972), the Mod 2 Kg Reading Program is intended to insure that the child utilizing the program learns (1) to decode the signals used for conveying the message in reading, and (2) to comprehend the content of the message. Optimally, the child should learn to read through acquisition of an integrated decoding and comprehension system. As a basis for the design of assessment and instruction relating to comprehension, it was proposed that a detailed analysis be performed on the language of the Mod 2 Kg stories. They suggested that a linguistic and psychological analysis of each word phrase, and sentence, in the Mod 2 reading materials be performed to develop hypotheses about the functioning and contribution of each element in comprehension. It was further suggested that a two-fold analysis be performed since both structure

and lexical contribute to the comprehension of a given word, phrase, or sentence. Analysis of the syntactic structures is necessary in order to determine the relation between the various linguistic elements which in turn are defined by the syntactic structures in which the elements appear. On the other hand, the examination of the lexical items reveals the conceptual aspects associated with each item in the particular content. The syntactic structures, then, modify and relate the lexical content of the words.

Bessemer and Jenkins present a procedure for such an analysis and give as an example a detailed surface structure analysis of the first five Mod 2 Kg stories. The analysis discussed in this paper follows the general procedure outlined by Bessemer and Jenkins.

ANALYSIS

The linguistic structure of each sentence in the Mod 2 stories was first analyzed. A set of symbols for structures and form classes was devised and used to represent the surface structure of each sentence. Then the words and structures in each story were classified as "new" or "old". A word, substructure, or structure is considered "new" throughout the story in which it first appeared. All sentences were then classified on the basis of the newness of both words and structures. Based on the classification, three tables were prepared: New Words in New Structures (Appendix 5), New Words in Old Structures

(Appendix 6), and Old Words in New Structures (Appendix 7). All sentences in the stories which do not appear in one of these three tables involve old words in old structures. All structures used in the Mod 2 Kg stories are listed in Appendix 8, arranged in a systematic ordering according to structural patterns.

When necessary, new symbols were introduced. The symbols, definition of terms, and examples of the realizations of each symbol are listed in Appendices 1 and 3. Appendix 3 lists the words according to their functional roles in the structures, and Appendix 4 lists the various kinds of elements which realize each structure. Some symbols necessarily are listed in both tables.

The structures were also examined as to which contexts would be best choices for introducing new words. Both primary and additional contexts for word classes other than verbs are listed in Appendix 9. The verbs were categorized according to transitivity, and the recommended contexts are listed in Appendix 10.

Each word in the Mod 2 Kg stories was also examined for its lexical meaning. The pictures and the sentences describing the events depicted were analyzed. Summary of the meanings, inferences, and relevant language and picture cues are reported in a later paper.

SYMBOLS

Symbols were created whenever a new symbol was needed for a structure, substructure, or formclass. In order to keep the analysis simple and directly usable, a slot-filler approach to syntactic

analyses was used as far as possible. A sentence is represented as a string of structural elements. The realization of each element is further represented, when necessary, by a substructure consisting of an additional string of structural elements. Finally, each element of the structure or substructure is represented as a syntactic function corresponding to the functional role realized by each word in the sentence.

The symbols are presented in two separate appendices. Appendix 1 lists the symbols for syntactic functions (realized as words) and Appendix 3 lists the symbols used for structural elements. In the latter one, no attempt is made to separate semantic categories (e.g., location, manner) and "grammatical" categories (e.g., noun phrase, prepositional phrase). Some overlapping is to be expected when realizations of syntactic functions and of structural elements are considered. For example, verbs are considered as structural elements in this analysis, yet for the most part, they are realized as syntactic functions, rather than substructures. Similarly, Aux appears on both lists of realizations: in one, it is realized as syntactic function; in the other as a special construction which includes negation. Qual is included in the list of structural elements since it is realized by an adverb whenever it is used. Similarly, D is included in the list of realizations as structural elements since it is realized by both Pro and Pod.

REALIZATIONS OF SYNTACTIC FUNCTIONS

All words of the Mod 2 Kg stories are listed in Appendix 2 according to their syntactic functions, and in order of their appearance in the stories.

The symbol N refers to mass and count nouns in this analysis. Story 12 introduces the plural ending for nouns and the third person singular ending for the verbs. Since inflectional forms are not represented in the present analysis, the inflected forms are considered to be "new" words. All nouns are listed in one list. No effort has been made to subclassify nouns according to common semantic features. Such subcategorization may prove useful in formulation of instructional and testing procedures. Similar procedures are likely to be effective with all items of a given subclass. Possible subset of the noun might be regarded as "abstract" (for example, band, trip, fun, help) or another might include those nouns which have some relationship to natural phenomena (mud, hill, pond, land, grass, rock). Words such as "path" "camp" might also be included in this latter category.

Proper nouns and pronouns are discussed together. In this analysis, Pn refers to proper nouns, Pro to personal pronouns. Pronouns are the first functions to be introduced in the stories. They are introduced early and used frequently. "He" and "she" are introduced in Story 26. Of 10 proper nouns, 8 seem to refer to male characters and 2 to female ones. This imbalance is reflected in the pronoun usage. The names of the female characters are commonly used proper names in English; one name (Pat) is used to refer to males or females, two (Nat, Bud) are

commonly used male names in English, and the rest included nonsense words or animal names. The imbalance could be avoided if "she" or "her" would be used to refer to half of the characters. The only difficulty would be the introduction of "her" which does not appear in the stories. When the drawings are viewed, the male/female distinction seems to be based on the length of eyelashes (but this distinction is not always included: Compare pages 2 and 3 in Story 7).

The symbol Dem refers to demonstrative pronouns in this analysis. The demonstratives are limited to one pronoun (this). No plural forms occur. Pod refers to the pro-adverb "there" in this analysis; "here" is not introduced. The symbol Adv refers to adverbs in this analysis. Of the adverbs, "still" is used as an intensifier with noun phrases or for indicating manner, whereas "now" and "just" modify the whole sentence in which they occur. "Yet" occurs once in a negative sentence, and once in a question but otherwise only as an interjection with the negative.

The symbol Adj refers to adjectives in this analysis. They are introduced late and occur rarely. They appear only as predicative adjectives in the copula construction. Only two adjectives are introduced; half of the 6 occurrences of "glad" are in complex infinitival constructions; "wet" occurs five times; once in an infinitive construction.

In English, "fun" serves both as an adjective and a noun, as can be seen in the paradigm "He had a fun day": "He had fun." In the Mod 2 stories "fun" occurs both as an object in SVO context and as a

predicate complement after the copula. In the latter case, "fun" could be considered to be either noun or adjective. But since there is no unambiguous example of "fun" functioning as an Adj, it is not included in the list of adjectives in this analysis.

The symbol Det refers to noun determiners in this analysis. In most cases it is realized by the definite and indefinite articles. The personal pronoun "his" and demonstrative "this" also realize Det. Story 28 required the introduction of the symbol Quan (Quantifier). It is realized by the prearticle "all" in the stories. It was used alone or in combination with the particle "of". It modified determiner and nouns (3 times) and personal pronouns (7 times). The various types of realizations can be seen in the following examples:

<u>Story</u>	<u>Page</u>	<u>Sentence</u>	<u>Structure</u>	<u>Substructure</u>
35	15	All the grass is out	S Be Pve	S → NP; NP → Quan Det N
34	7	Dasli put all the rocks on the grass	SVO Loc	O → NP; NP → Quan Det N
34	14	Tut has all of his rocks back	SVO Sta	O → NP; NP → Quan Pr Det N
28	8	All of them are with me	S Be Acc	S → NP; NP → Quan Pr Pro
28	6	Lil, we are all on a trip	Voc S Be Quan Sta	
35	16	Now we can all play	Te S Aux Quan V	
28	14	Ruff will put them all in his den	S Aux Voc Los	O → Pro Quan

In the structural descriptions of the following sentences, Quan is presented as part of structure, rather than substructure.

<u>Story</u>	<u>Page</u>	<u>Sentence</u>	<u>Structure</u>
28	6	Lil we are all on a trip	Voc S Be Quan Sta
35	16	Now we can all play	Te S Aux Quan V

The present analysis was limited to surface structures and thus the underlying relationship between Pro and its quantifier when these are disjunct is not revealed by the structural description. Future analyses should allow for structural descriptions which will adequately represent the relationship between the pronoun and its quantifier and which will relate that representation with other realizations including Qwan.

Some believe the combination Pro and all to be a dialectal feature (you all, we all). The combination might prove to be a source of difficulty for those children whose speech does not include this feature.

The symbol Prt refers to particles and the symbol Pr to prepositions in this analysis. Particles include those function words which are used as verb complements or which are part of composite prepositions. Prepositions denote those particles which are used with noun phrases to form prepositional phrases.

In the Mod 2 Kg stories, particles occur frequently as indicators of direction. With the copula and the verb "keep," particles were used to refer to stative conditions. In the cases above, the head NP is considered to have been deleted. The particle "on" was used to indicate continuity.

There is one area of particle usage where the analysis proved to be unsatisfactory. This is the case when the particle is linked to the verb in such a manner that the combination could almost be classified as a compound verb. The following examples can be cited:

<u>Story</u>	<u>Page</u>	<u>Structure</u>	<u>Sentence</u>
22	1	SV O Prt	Tip put his tent up
29	3	SV Prt O	Pat puts on his mask
25	11	SV O Prt	Lil helps Bud out
35	3	S Aux V Prt O	I must dig up this rock

If the verb and the particle are considered to form a compound, the verbs would have included the following rule:

$$\begin{array}{l} V \rightarrow V_x X \\ X \rightarrow \text{Prt} \end{array}$$

In addition, transformational rules for particle movement would have had to be introduced. Due to the limited scope of the analysis, this was not desirable. It was decided to introduce the Prt as a structural element, rather than as part of the substructure in such cases.

It seems possible that children will learn composite prepositions such as "out of" (Story 28) and "in back of" (Story 33) as a unit. For this reason, composite prepositions are considered to be "new words" as well as "new structures" in this analysis. Thus for example, Story 28 lists "of" and "out of" as new words although "out" was introduced already in Story 22. Similarly, the child might learn "up and down" (Story 32) as an idiom. It is possible that during the early learning stages he does not relate it to two different particles which are conjoined. However, in this analysis, "up and down" is not listed among the "new words."

The symbol V refers to verbs, excluding copula "be" and the auxiliaries, in this analysis. All verbs are listed in their order of appearance. All inflected forms are included in the list. Although in Appendix 10 the verbs are divided according to transitivity, no effort

has been made here to group the verbs according to some other common features they might have. No division has been made between, say, such verbs as "let" (which at times almost has an auxiliary character) and say, "need, want" or "ask."

Be refers to the copula. Four forms of the copula are introduced in the stories. Do refers to the "do" transformation marker. Only the form marked for past tense is used. The word "did" fills three functional roles: (1) as a transformation marker for questions (Story 13: Did you slip, Snap?) and negatives (Story 21: Snap did not stop Pat.) (2) as a marker for emphasis (Story 32: The ship did land.) and (3) as a V (Story 35: We did the job.) When test items for the comprehension component are designed, it is necessary to develop different items for the various usages.

Aux refers to the auxiliaries, of which three are introduced. The term Auxneg becomes necessary after Story 35 in which "cannot" occurred. It was introduced and used consistently as a single unit. Thus, this negative construction is not included in the function of Neg. This naturally clouds its close connection with the Neg. In further analyses, especially when contracted verb forms are considered, the analysis should be changed accordingly.

The symbol Neg refers to the negative particle. Only "not" occurred in the stories. The symbol Con refers to the conjoining particle. Only "and" occurred. The symbol Int refers to intensifiers. The only intensifier used was: "still". The symbol Ijn refers to interjection in this analysis; only the positive interjection "yes" occurred.

REALIZATIONS OF STRUCTURAL ELEMENTS

Each structural element and its various realizations are listed in Appendix 4. The realizations of each element are listed in order of appearance in the stories, and the story and page of first occurrence is indicated.

The subject of a sentence is considered to be the instigator of action identified by the verb in this analysis. In the first 6 stories, the subject (S) is realized solely by pronouns. In Story 7, proper nouns (Pn) are introduced. NP occurs as a subject first in Story 9, although it has been used as an object of the preposition as early as in Story 5. The NP is introduced as the subject in D Be S context. In Story 12, the NP occurs as a subject in a SVO context. Conjoined NP's (Det N) do not occur. The subject is realized by Inf ^{Loc}_{Pve} in D Be Pve context only.

The structural element object (O) refers roughly to the goal of the action expressed in the verb. In this analysis, O includes all the functions or substructures which follow transitive verbs (Appendix 10) and which are not adverbs or prepositional phrases. The superficial level of the present analysis is evident from the variety of constructions which are denoted as O. It is difficult to keep the analysis on two levels and yet represent the complexities which underly the structures falling under the O category.

Despite the superficiality, it can be seen that the functions and substructures fall within four main groups. The first group consists of direct objects realized as pronouns, nouns and proper nouns. The

in three of these the same verbs were conjoined. "Do" was used as a verb in past tense twice. The passive construction "is (are) cut" occurred twice.

The Infinitive (Inf) of a verb is formed by adding the particle "to" in front of an uninflected verb form. The infinitive construction was used in the last 11 stories. The usage averaged to about two times per story.

The Location (Loc) element is constructed with a preposition and a noun or its substitute. Pro-adverbs are used to express location both with and without preposition. One locational particle was found. The Direction (Dir) element is essentially very similar to location. Often the classification (Location vs. Direction) depends solely on the features of the preceding verb, rather than on choice of the preposition or its head.

In addition to prepositional phrases and the pro-adverb, direction is often expressed by a particle. The particles following the verb "go" function as the element direction in this analysis. The only exception is the particle "on," which is used to denote a temporal dimension in connection with the verb "go

Sometimes it is difficult to recognize whether the particle preceding the pro-adverb forms a substructure with it or whether the particle forms a substructure with the preceding verb. Compare for example;

<u>Story</u>	<u>Page</u>	<u>Structure</u>	<u>Sentence</u>
32	3	SV Dir Loc	It went down in a pit.
32	4	V Dir Acc; Dir → Pr Pod	Run down there with me.

second group includes embedded sentences where the subject of the embedded sentence differs from that in the matrix sentence. Thus, in the sentence "Let me play with you," the embedded sentence "I play with you" is considered to serve as an O. The third group includes those substructures where the subject differs from that of the matrix sentence; but in addition, the verb of the embedded sentence is neutralized into an infinitive construction. For example, the sentence "I will ask Pat to go with me" is constructed of two sentences.

<u>Sentence</u>	<u>Structure</u>
I will ask + sentence	S Aux V O
Pat will go with me	S Aux V Acc

When the latter sentence is embedded into the former, the Aux of the second sentence is deleted and the verb is nominalized with the help of the particle "to." The resulting structure S Inf Acc functions as an O in the matrix sentence. The fourth category includes those structures in which the subjects of the matrix sentence and that of the embedded sentence (O) are the same; thus, the subject of the embedded structure can be left out and the verb of the embedded sentence is neutralized into an infinitive form. For example, in the sentence "I want to see it," the O structure which is realized by the structure Inf O (to see it) can be considered to have been derived from the sentence "I see it."

As pointed out previously, most of the Verbs (V) are realized as functions at this level. There were but two cases where V was realized by substructures. A conjoined verb structure occurred 4 times;

In the first sentence "went down" seems to form a unit whereas in the second one "down there" seem to belong together. Sometimes more than one interpretation is possible.

This analysis does not show any differences in the various particle constructions. In one construction, repetition of the same particle is used; in another one, different particles from a composite preposition.

The sentence elements Accompaniment (Acc) and Means (Me) are realized by prepositional phrases in the stories. The prepositional phrase consists of the preposition "with" and a noun, propernoun or their substitutes.

Conjoined heads occur in Acc. The element Acc usually expresses the person(s) or groups in whose company the subject of the sentence is on who joins in the action expressed by the verb. Me denotes the instrumentality or method used in the action expressed by the verb.

The one Benefactive (Ben) occurrence is similar to the direction classification. It seems to depend more on properties of the verb than the head noun in the prepositional phrase whether a structure is called Ben or Dir.

Manner (Man) is expressed with the help of 3 different substructures. There was some doubt whether Pr NP (in the mask) should be called manner or locative, but it was felt that manner classification was better suited in this case. Most often the adverb "still" is used to indicate manner in the Mod 2 Kg stories. The element Purpose (Pur) was realized once by an infinitive construction. In this case, it refers to an embedded sentence which expresses the purpose of the action indicated by the main verb.

The structural element called State (Sta) in this analysis is close to the locative classification. The element Sta is usually used to denote state of being. When a prepositional phrase is used, the head noun usually has abstract properties. When particles realize the element Sta, they are usually in the S B Sta context.

The structural element continuation is expressed solely by the particle "on" which functions also as Loc or Sta and as a preposition. Thus this particle is used to refer both to temporal and spatial dimensions.

Vocatives are realized by proper nouns. They occur in sentence initial, medial, and final positions in the Mod 2 Kg stories. They are introduced early and used frequently. The vocative identifies by name the character or characters to whom the sentence content is addressed. In writing, commas are used to separate the vocative from the main clause. In speech the vocative is recognized by pauses and by the general intonation contour.

The predicate complement linked to the subject by the copula expresses some attributive relation to the subject or designates the same entity as the subject. It is realized by several functions or substructures in the Mod 2 Kg stories. For example, in the following sentences the predicate complement is realized by the past participle of the verb "cut" (the form is identical with the base form of the verb).

<u>Story</u>	<u>Page</u>	<u>Sentence</u>	<u>Structure</u>
31	7	The logs are cut	S Be Pve
35	15	All the grass is cut	S Be Pve

The realization as a particle occurs in Story 26 when baseball terminology is introduced.

The present analysis of the infinitive constructions is not satisfactory. The division into substructures should indicate that the infinitive construction belongs to a different level of analysis than do the other elements of the sentence. Possible solutions would be, for example:

- 1) S Be X
 X → Pve Y
 Pve → Adj; Y → Inf $\left\{ \begin{array}{l} 0 \text{ Me} \\ (\text{Sta}) \end{array} \right\} \text{ Loc}$
- 2) S Be Pve X
 Pve → Adj; X → Inf $\left\{ \begin{array}{l} 0 \text{ Me} \\ (\text{Sta}) \end{array} \right\} \text{ Loc}$

However, Solution 2 elevates the infinitive construction to the level of the main structure, rather than lowering it onto the substructure level. Solution 1 reveals similar substructures as those which are realizations of the S and Q elements. It is evident that additional terminology has to be introduced; also in this type of structures a different kind of representation of the elements and their realizations would probably be advantageous.

The element Dummy (D) is introduced when there is need to mark the SV word order. This becomes necessary when the actual subject of the sentence is placed after the verb in the sentence. The element Dummy is realized by the pro-adverb or the pronoun "it."

In this analysis, NP refers to Det N only. In a more thorough analysis, proper nouns, pronouns, and nouns without surface determiner should also be included. The term PP was introduced to refer to all prepositional phrases. The basic sentence structure could thus be expressed simply when the contexts for new words were discussed.

The elements Time (Te) and Qualifier (Qual) are expressed by adverbs only. The element Te occurs mostly in sentence final position. In the last story, it is used in combination with the negative particle. The element Qual occurs as a sentence modifier in sentence initial position.

INTRODUCTION OF NEW WORDS AND SENTENCES

Appendices 5-7 can be used in identifying words and structures as "new" or "old". The new words first appearing in new structures (whether main structures or substructures) are listed in Appendix 5, together with symbolic representations of the structures in which they appear. In addition the sentence in which the word and structure first appeared is given. As can be seen in Appendix 5, identical sentences involving new words and new structures occurred frequently in the first 4 stories. After Story 12, there are no repetitions of the same sentence in the same story.

Appendix 6 lists the new words which occurred in old structures, symbolic representations of the old structures, and the sentences where the words first occurred. Appendix 7 lists the new structures which were introduced with old words. Only symbolic representations of the main structures and/or substructures and the sentences in which the structures were introduced are listed here.

Inspection of the appendices suggests that new and old structures are used about equally often to introduce new words. Old words were used less often to introduce new structures. The first old word-new structure combination occurs in Story 5.

The first step in the analysis of the Mod 2 Kg stories was to give each sentence a structural description in symbolic form. The structures were then compared with each other and divided into "new" and "old" categories. A structure was considered "new" throughout the story in which it first appeared, and was classed as "old" in subsequent stories.

Each word in the Mod 2 Kg stories was classified as "new" or "old." A word was considered "new" throughout the story in which it first appeared, regardless of its frequency in that story.

If a word fills one functional role in one story and another one in another story, it is not listed as a "new word" in the second story. For example, "land" (Story 13) is introduced as a verb. In Story 21 "land" occurs as a noun. Often the new function becomes a structural element in another new structure; in that case, both words and structure occur in the old word-new structure appendix (Appendix 7).

In other cases however, the new functional role of an "old" word escapes listing. For example, the word "help" is first introduced as a verb in Story 20 and then as a noun in Story 25. Since the word is an old word in Story 25 and since the syntactic function N is an old function, there is no listing for this type of combination in the structural description. The words are, however, listed in Appendix 2

(Realizations of Syntactic Functions). After encountering the first appearance of a word, Appendix 2 can be checked to determine what other "old" functions it may realize in subsequent stories.

SURFACE STRUCTURES OF SENTENCES

The symbolic representations of all surface structures which occurred in the Mod 2 Kg stories are listed in Appendix 8. The structures appear in the following groups:

- | | |
|---|-------------|
| 1) Structural pattern <u>SV</u> plus additional elements | pages 80-89 |
| 2) Structural pattern <u>D Be</u> plus additional elements | pages 85-87 |
| 3) Structural pattern <u>SVO</u> plus additional elements | pages 88-91 |
| 4) Structures which include <u>Do</u> and/or <u>Neg</u> elements
in their descriptions | pages 92-93 |
| 5) Structures without the element <u>V</u> | page 93 |
| Structures which include element <u>Ijn</u> | page 94 |
| Structures where two <u>SV</u> 's occurred | page 94 |

The S Aux V, including the question transformation (Aux SV) is listed in Group 1. The imperative context (V), where the surface subject is considered to be deleted, is included here as well. The S Aux Be and the question transformation Be S contexts are enumerated after S Be contexts. The SVO-group includes S Aux V O, Aux SVO, and VO structures. Although the Do and Neg contexts are considered to be transformations of the patterns above, those structures which include the above elements are listed together for the purpose of this analysis.

Within a group, the structures were ordered by combining all similar structures together and arranging them according to an approximate order of complexity of substructure representation. Unfortunately, occasional arbitrary choices could not be avoided in the present analysis. Thus, for example, within the SV Dir context, the substructure [Dir → Pr N]

(Story 31, page 1) might be considered simpler than [Dir → Prt] (Story 22, page 7) since in the former no head noun deletion occurs. On the other hand, the realization of Pr N (to camp) where no determiner occurs in the surface structure might prove to be the more complex one of this case.

Within an arrangement of a group of structures, the criterion of complexity is not always based on comparison of the same elements in the structures. For example, in the first two SV Loc structures listed, the Loc element was realized by Pr NP. In the second structure, in addition, the S was realized by conjoined proper nouns, and thus the latter structure was judged to be the more complex one.

Sometimes the order of complexity progresses from story to story: simpler structures in earlier stories; more complex ones in the later stories. This can be seen, for example, among the S Aux V Loc and S Aux VO Loc structures. However, sometimes more complex structures are introduced earlier than simpler ones. This is the case, for example, when the Neg element is introduced. The first Neg element occurs in Story 21 in S Aux Neg V Loc and Voc S Aux Neg V Loc structures. The simpler S Aux Neg V structure is introduced first in Story 23. In such cases, the simpler structures could be introduced in the instructional material so that the child is familiar with the basic structures prior to the introduction of the more complex ones.

The last two appendices were compiled in order to point out basic structures in which new words can be introduced. All the structures of the sentences were examined. The standard context was selected

after considerations of simplicity, frequency, and common usage.

Appendix 10 lists the recommended structural contexts for initial instruction on new words, other than verbs. In this appendix, the classes (or syntactic functions) and the structural element in which the function occurs are listed. The standard context in which the particular element occurs is given next, and some additional contexts which might not be used as often are included as well. In using the appendix, each new word has to be categorized according to its syntactic function, after which the appropriate context is chosen. As an example, consider a word *x* which has been classified as a noun. Nouns occur as subjects, and the standard context in which the subject occurs may be chosen from the available contexts.

For the Pro-adverb the standard context should be a SV $\begin{Bmatrix} \text{Dir} \\ \text{Loc} \end{Bmatrix}$ structure where $\begin{Bmatrix} \text{Dir} \\ \text{Loc} \end{Bmatrix}$ is realized as the pro-adverb alone. Only after this concept is clear, should the additional context which includes a preposition be introduced.

When the Time adverb is considered, word order becomes the guiding principle between standard and additional contexts. When prepositions are considered, simple prepositions are included in the standard context, composite ones in the additional one. When particles realize the element Dir and Loc, they are included in the additional context. The primary context includes only prepositional phrases without deletions.

The verbs used in the Mod 2 Kg stories are listed in Appendix 11. They are classified as intransitive, transitive, or both. Verbs which are called intransitive are not used with direct objects. Transitive

used verbs occur usually with direct objects. The both-category includes those verbs which can be used intransitively and transitively.

The verbs were tried out in simple sentence frames SV (He fell) or SVO (He needs it). There seems to be a natural division between those verbs that were used with objects and those that were used without. A third category includes the verbs which fitted both sentence frames. The division is not absolute. Some of the verbs which are classified here as intransitive verbs can be used transitively. Compare for example "The boy runs" with "The boy runs the machine". But in accordance with the use in the stories the above division seemed most useful.

Only one verb was added to another category. The verb "smash" (Story 23) is used both transitively and intransitively in the same story.

Intransitive: We will smash.
 It will smash.
 We will not let it smash.

Transitive: The ship will smash us.

The sentences where "smash" has been used intransitively do not sound right. When an object has been added to the above intransitively used verbs, the sentences seem more complete:

We will smash it.
It will smash us.
We will not let it smash us.

USE OF APPENDICES

The appendices consist of tables which enumerate the symbolic representations of functions, elements, and structures which occur in the Mod 2 Kg stories. In Appendices 2, 4, and 5-7 the structural

descriptions are listed in sequence of occurrence. Appendices 1 and 3 list in alphabetic order the symbols used throughout the analysis. Appendix 8, which lists the symbolic representations of all structures, is ordered according to the internal arrangement of the structures. Within a group, the structures are listed in order of simple to complex. Appendix 9 is arranged according to word classes while Appendix 10 lists the verbs of Mod 2 Kg in alphabetic order and according to transitivity. The application of the tables is illustrated with the help of examples.

Sentences and their structural descriptions are listed in Appendices 5-8. If only the structural description is given, it is possible to find how a sentence is realized by consulting various appendices. For instance, given the structural description SVO Loc, one can find the SVO contexts listed in Appendix 8. Among the various structures, two SVO Loc structures occur, the first in Story 18, page 10. The realization of the structure can be found in Appendix 5 or 7. In this case, it is located in Appendix 5, the realization being the sentence "Ann puts Tut in the tub."

If one wants to find out how some elements of the particular structure SVO Loc are realized, one can consult Appendix 4 (Realizations of Structural Elements). For instance, what substructures or functions realize the element Loc? This element can be looked up in Appendix 4 where the realizations of Loc are listed in their order of appearance. As can be seen, all but two of the eight realizations of Loc are already "old" by Story 18. Any one of these can be used when practice sentences are constructed.

Given a certain sentence structure, one can look up the realizations of the various elements occurring in it in Appendix 4, choose then the desired realizations (be they functions of substructures) and construct a new sentence. For example, given structure SV Dir, a new sentence is to be constructed. An examination of Appendix 4 reveals the various realizations of S, V, and Dir. One may choose from these functions Pn for subject and the substructure Pr NP for Dir. Since V is realized both as a function and as an element, both Appendices 2 and 4 can be consulted when a realization for it is chosen. Once the realizations are selected, the lexicon may be chosen from Appendix 2 which lists all realizations of syntactic functions. In this case, the following "grammar" has been constructed:

1. Sentence \rightarrow S V Dir
2. S \rightarrow Pn
3. Dir \rightarrow Pr NP
4. NP \rightarrow Det N
5. Pn \rightarrow Lil
6. V \rightarrow runs
7. Pr \rightarrow to
8. Det \rightarrow this
9. N \rightarrow log

With the help of this "grammar," the sentence "Lil runs to this log" can be constructed.

If one wants to compare similar SV Dir structures, one can examine the various types of occurrences of SV Dir in Appendix 8. One can see that both Dir and S in the context SV Dir are realized in various ways. If one wants to find out examples of realizations, one can find them by looking at the stories themselves (Story and page numbers are given) or by examining Appendices 5 and 7 (New Words-New Structures, Old Word-New Structures, respectively) where they are listed in order of

the stories in which they appeared. Looking at the various realizations of SV Dir in Appendix 8 and comparing them to the sample sentence discussed here (SV Dir; Dir → Pr NP), one notices that no [Dir → Pr NP] occurred in the simple SV Dir context. Hence, this particular realization of the substructure in the SV Dir context could be introduced in the instructional material.

If another simple realization of the element is needed, one can look at the list of substructures in the same Appendix. It can be seen that Dir was realized by Pod in the SV Dir context in Story 8; but in that case, a Voc occurred as part of the structure. It is possible to substitute the substructure Fr NP with the function Pod since they occur as realizations of the same element. If Pod is chosen, the "grammar" has acquired an additional rule [Dir → Pod] or combined, rule reads [Dir → {Pr NP
Pod }]. Now the sentences "Lil runs to the log" and "Lil runs there" can be constructed.

Suitable realizations can also be chosen by using the Appendix 4. After a substructure or function is chosen, the realizations of the substructure elements can be looked up in the same appendix, or in case of a function the realization can be found in Appendix 2.

If an expansion of an element is required, the realizations of the elements can be examined in Appendix 5. If an expansion of a structure is desired, examples can be found in Appendix 2. Examining Appendix 8, one can see that SV Dir context was expanded with additional elements such as Voc, another Dir, Acc, and Pur. One can also see that the elements can be switched around. The structure SV Dir can also

be expanded by adding the element Aux. Now one can compare the various occurrences of Dir in the S Aux V context. In a similar fashion as in the example "Lil runs to the log," the expanded structures can be realized by sample sentences from Appendices 5 and 7 or new sentences can be constructed by using Appendices 2 and 4.

If only an element is given, its various realizations can be found in Appendix 4. If it is realized by a function, the realizations of functions can be found in Appendix 2. If an element or function is given, it is also possible to find out in what kind of contexts they occur. For example, given the element Dir and by looking at Appendix 4 one can see that the element Dir occurs in SV, S Aux V, Aux SV, V, Aux SV0, and V0 contexts.

When a word is given, it is possible to find out its function. One can examine Appendix 1 where all the symbols for syntactic functions are given and look at the examples of realizations listed after each symbol. If the word is similar to any of the examples, it is listed under the symbol which it realizes in Appendix 2. For example, one wants to find out what the function of the word "drum" is. Looking at Appendix 1, one finds that its function is similar to "log" or "pit." Those words are listed as realizations of nouns. When Appendix 2 is examined the word "drum" can be found listed under the nouns.

When a phrase is given, it is possible to find out what structural element it realizes, if the functions are known. For instance, if the phrase "in the drum" is given, the first task is to compare it to the examples of realizations in Appendix 2 (Symbols for Structural Elements). One can see that Dir, Loc, Sta, and PP include similar phrases. In the

Appendix 4 the realizations of these elements are given. If the functions are known, it is easy to match the substructure of the element to the structural description of the phrase. If they are not known, they can be checked by following the procedure given on the previous page. Following the above procedures, it is possible to find out the functions and elements by which a given word or phrase is realized. The available contexts for functions can be found in Table 4 and the available contexts for elements (or functions which are part of structure, rather than substructure) can be found in Appendix 8.

For practice purposes the contexts can be varied. In a suitable sentence frame chosen from Appendix 8, given words and phrases can be contrasted within the same functions or elements by substituting them with other realizations. These choices can be found in Appendices 2 and 4.

The Appendices 5-7 were designed to identify the new features in each Mcd 2 K& story. As can be seen from the appendices, each story adds several new functions and/or elements to the reading material. Yet, the new items are not too numerous to be incorporated into an instructional component. In each story, the new linguistic entities can be noted and contrasted with the old linguistic entities and with each other, if necessary.

When new words are introduced, they frequently bring in new elements and structural complexities. For example, Story 21 introduces the negative construction. This new element can not be introduced in an old context. Its introduction results also in a new usage of the transformation marker "did" which until now has only been used as a

question marker. If it is possible to introduce a "new" word in an "old" structure in the instructional component, it should be done. Similarly, if "new" structures (for example, question, emphasis transformations, embedding) do not need "new" words as their building blocks, "old" words can be used when they are introduced. The appendices can be used as an aid when suitable contexts need to be designed for the instructional component.

When new elements occur, only one new element should be introduced at one time, if possible. The context should be kept simple and whenever possible the basic declarative word order should be used prior to questions or imperatives. Frequently the elements are introduced in this manner in the Mod 2 Kg stories. For example, when conjoining is introduced in Story 13, it occurs first with already familiar proper nouns in an "old" SV context. In such cases, the appendices can be used in design of additional practice material for reading. When the new element is introduced in a context where more than one new element occurs simultaneously, the appendices can be used in developing frames where one element at a time can be contrasted. For example, Story 12 introduces the present tense inflected form of verbs and the plural marker of nouns. Both grammatical devices are used in the same sentence "Tip plays with the logs." Suitable frames where only one new form is introduced at the same time may be designed with the help of the appendices.

When elements are introduced in complex structures the appendices can be used in developing simpler frames which can be incorporated in

the instructional component. For example, Story 25 introduces the child to one kind of embedding. The first sentence in that story is "See the ships out there." It can be considered to be formed from two structures:

(You) see the ships.
The ships are out there } → (You) see the ships out there.

Before the more complex sentence "See the ships out there" occurs, the simpler sentences can be introduced to the child in the instructional component. Again, the appendices may be used in choosing suitable contexts.

The length of sentences is always a potential source of difficulty for some children. Yet, a degree of sentence length is necessary in order to convey particular ideas and in order to keep the story content vivid and interesting. However, in the instructional component the length of sentences can be kept to bear essentials. For example, embedding sometimes involves extra sentence length. The embedded structures are identified in the substructure lists of the appendices. With the help of these, suitable contexts can be designed so that the child can practice the various components of the longer sentences. Thus he will already be familiar with them when he encounters them in the stories.

CONCLUSION

When creative stories are written, it is difficult to adhere to the strict limitation of select vocabulary chosen according to sound/symbol correspondences. When to this limitation the specification of

underlying sentence structures is added, the story writing task becomes exceedingly difficult. When the comprehension instruction is added to the Mod 2 Kg stories, it can prepare the child for the story to be read. If the instructional procedure is effective the child will comprehend not only the meaning of the vocabulary he reads but also have the ability to interpret the various structures and substructures underlying the sentences. When he reads a particular story, he will already be familiar with both the lexicon and the various structural elements and functions used in it.

The appendices described in this paper were compiled so that it would be possible to identify the basic components of the sentences used in the Mod 2 Kg stories. Since the various functions, elements, substructures, and structures are listed in separate appendices it is easy to recognize the relationships and interactions between the different components. With the help of the appendices it is possible to concentrate on the new items in each story, to compare similar items and to contrast those which differ.

APPENDIX 1
SYMBOLS FOR SYNTACTIC FUNCTIONS

APPENDIX 1

SYMBOLS FOR SYNTACTIC FUNCTIONS

Symbols	Syntactic Function	Examples of Realizations
Adj	Adjective	Adj → wet, glad
Adv	Adverb	Adv → now, still
Aux	Auxiliary	Aux → will, can, must
Auxneg	Auxiliary Negative	Auxneg → cannot
Be	Copula	Be → am, is, are, be
Con	Conjoining	Con → and
D	Dummy	D → there, it
Dem	Demonstrative	Dem → this, that
Det	Determiner	Det → the, his, a, this
Do	Transformation Marker	Do → did
Ijn	Interjection	Ijn → yes
Int	Intensifier	Int → still
N	Noun	N → log, pit, band
Neg	Negative	Neg → not
Pn	Proper Noun	Pn → Ann, Nat, Bud
Pod	Pro Adverb	Pod → there
Pr	Preposition	Pr → with, on, to, in, out
Pro	Pronoun	Pro → I, you, we
Prt	Particle	Prt → in, out, back, in back of
Qual	Qualifier	Qual → just
Quan	Quantifier	→ all

APPENDIX 2
REALIZATIONS OF SYNTACTIC FUNCTIONS

APPENDIX 2

REALIZATIONS OF SYNTACTIC FUNCTIONS

Symbols	Realizations			
	<u>Story</u>	<u>Word</u>	<u>Story</u>	<u>Word</u>
N	5	log	23	shin
	9	nit	24	path
	12	logs	24	tree
	14	tent	25	help
	14	den	27	fun
	16	band	29	mask
	16	tub	31	camp
	17	mud	32	trees
	18	tubs	33	rock
	19	trip	34	rocks
	19	drum	34	grass
	20	hill	35	job
	20	drums	36	back
	21	pond	37	box
	21	land	37	trick
Pn	7	Ann	11	Lil
	8	Nat	15	Tut
	9	Tip	16	Bud
	9	Pat	23	Dash
	10	Snap	27	Puff

Symbols	Realizations			
	<u>Story</u>	<u>Word</u>	<u>Story</u>	<u>Word</u>
Pro	1	I	15	us
	3	me	18	he
	4	you	20	him
	6	we	24	them
	7	it	26	she
Dem	24	this	29	that
Pod	2	there		
Adv	11	still		
	32	now		
	35	just		
	36	yet		
Adj	30	wet	34	glad
Det	5	the	22	his
	18	a	24	this
Qual	28	all		

Symbols	Realizations			
	<u>Story</u>	<u>Word</u>	<u>Story</u>	<u>Word</u>
Pr	3	with	28	from
	5	on	28	out of
	6	to	28	out
	8	in	23	down
	15	up	33	in back of
Prt	14	in	28	of
	15	up	32	down
	17	on	33	back
	22	out		

Symbols	Realizations			
	<u>Story</u>	<u>Word</u>	<u>Story</u>	<u>Word</u>
V	1	go	25	need
	2	play	25	needs
	10	sit	27	sees
	11	slip	27	fell
	12	sits	29	ask
	12	plays	29	keep
	12	slips	29	keeps
	13	land	30	went
	14	let	30	swim
	14	lands	31	camp
	18	put	31	cut
	18	puts	32	want
	19	run	33	wants
	19	runs	33	trick
	20	help	34	dig
	21	helps	35	did
	21	stop	35	jump
	22	has	36	yell
	23	smash	36	yells
	24	stops	37	fix
	25	see		

Symbols	Realizations			
	<u>Story</u>	<u>Word</u>	<u>Story</u>	<u>Word</u>
Be	4	are	17	am
	9	is	26	be
Do	13	did		
Aux	1	will	31	can
	17	must		
Auxneg	35	cannot		
Neg	21	not		
Con	13	and		
Int	14	still		
Ijn	36	yes		
Qual	35	just		

APPENDIX 3
SYMBOLS FOR STRUCTURAL ELEMENTS

APPENDIX 3

SYMBOLS FOR STRUCTURAL ELEMENTS

Symbols	Structural Element	Examples of Realizations
Acc	Accompaniment	Acc → with me, with Snap
Ben	Benefactive	Ben → to Snap
Ctn	Continuity	Ctn → on, on and on
Dir	Direction	Dir → to the log, in, there
Inf	Infinitive	Inf → to go, to play, to see
Loc	Location	Loc → on the log, in, there
Man	Manner	Man → still, up and down
Me	Means	Me → with the tub
NP	Noun Phrase	NP → the log, all of the rocks
O	Object	O → the log, me, land
PP	Prepositional Phrase	PP → in the log, to the log
Pur	Purpose	Pur → to trick Ruff
Pve	Predicate Complement	Pve → glad, the pit, out
S	Subject	S → the log, mud, I, Ann
Sta	State	Sta → in the band, back
Te	Time	Te → now, yet
V	Verb	V → go, play, see
Voc	Vocative	Voc → Ann, Snap

APPENDIX 4
REALIZATION OF STRUCTURAL ELEMENTS

APPENDIX 4

REALIZATION OF STRUCTURAL ELEMENTS

Story	Page	Element	Realization
1	2	S	Pro
7	4		Pn
9	4		NP
13	4		Pn Con Pn
15	8		Pn Pn Con Pn
18	1		N
22	3		Pn Con Pn Con Pn
24	10		Dem
27	1		Inf Loc
28	8		Quan Pr Pro
30	7		Inf Pve; Pve → Adj
35	15		NP; NP → Quan Det N
7	2	O	Pro
14	6		Pn
14	13		Pn Con Pro
16	4		NP
24	5		Dem
25	1		NP Loc
25	9		N
28	12		Pro Quan

Story	Page	Element	Realization
32	9		NP Con NP Loc: Loc → Pr Pod
32	10		NP Con N
34	7		NP; NP → Quan Det N
34	14		NP; NP → Quan Pr Det N
37	9		NP Me Loc
14	5		SV Acc
15	10		SV Loc
16	7		SVO; O → NP
18	4		SVO Loc
19	8		SV Sta
19	14		SV Ctn: Ctn → Prt
21	9		SVO; O → Pro
26	3		S Be Acc; Acc → Pr Pro Con Pn
29	5		SV Dir
30	8		SV
31	3		SV Prt O
31	5		SVO; O → N
34	1		SVO Dir
35	12		SV Dir O
29	2		S Inf Acc
32	6		S Inf Sta Acc
32	11		S Inf Man: Man → Prt Con Prt
33	3		S Inf O; O → Pro

Storv	Page	Element	Realization
32	4		Inf O; O → Pro
32	7		Inf
32	12		Inf Dir
35	1		Inf Man; Man → Prt Con Prt
19	10	V	V Con V
35	13	V	Do
27	1	Inf	to Be
29	2	Inf	to V
2	2	Loc	Pod
5	1		Pr NP
8	7		Pr Pod
11	1		Pr Pn
13	14		Pr Pro
14	11		Pr Pn Con Pn
21	15		Pr N
24	5		Prt
2	3	Dir	Pod
6	4		Pr NP
8	5		Pr Pod

Story	Page	Element	Realization
10	5		Pr Pn
14	6		Prt
15	7		Prt Prt
15	16		Prt Prt Prt
20	4		Pr Pro
24	12		Pr Pn Con Pn
28	7		Pr NP; Pr → Prt Prt
31	1		Pr N
32	6		Pr NP Lcc
33	2		Pr NP; Pr → Prt Prt Prt
3	2	Acc	Pr Pro
12	13		Pr Pn
16	9		Pr Pn Con Pn
22	4		Pr NP
26	3		Pr Pro Con Pn
12	8	Me	Pr NP
24	13		Pr Pn Con Pn
10	2	Ben	Pr Pn
12	1	Man	Adv
29	6		Pr NP
32	11		Prt Con Prt

Story	Page	Element	Realization
33	10	Pur	Inf 0; 0 → Pn
16	9	Sta	Pr NP
29	13		Prt
17	7	Ctn	Prt Con Prt
17	11		Prt
7	1	Voc	Pn
13	14		Pn Con Pn
35	3	Aux	Auxneg
24	10	Pve	NP
26	9		Prt
29	10		Pn
30	3		Adj
30	14		N
34	4		Adj Inf 0 Me
35	12		Adj Inf Loc; Loc → Pr NP: Pr → Prt Prt
36	15		Adj Inf Sta Loc
37	16		Adj Inf Loc; Loc → Pr Pod; Fr → Prt Prt
2	9	D	Pod
27	4		Pro

Story	Page	Element	Realization
5	1	NP	Det N
34	7		Quan Det N
34	14		Quan Pr Det N
3	2	PP	Acc
5	1		Loc
6	4		Dir
10	2		Ben
12	8		Me
16	9		Sta
29	6		Man
32	2	Te	Adv
35	5	Qual	Adv

APPENDIX 5
NEW WORD-NEW STRUCTURE

APPENDIX 5

NEW WORD-NEW STRUCTURE

Story	Pages	Word	Structure	Substructure	Sentence
1	1, 3, 9	I	SV	S → Pro	I go.
	2, 12, 14	go	S Aux V		I will go.
	4, 7	will	Aux SV		Will I go?
	5, 10, 10, 13		V		Go.
	6, 8, 11		S Aux		I will.
2	2, 7, 11, 14	there	S Aux V Loc	Loc → Pod	I will play there.
	3, 8, 13	play	S Aux V Dir	Dir → Pod	I will go there.
	6		V Loc	Loc → Pod	Play there.
	9, 12, 15		D SV	D → Pod	There I go.
3	2, 10, 12	with	V Acc	Acc → Pr Pro	Play with me.
	2, 10, 12	me			
	4, 7		V Loc Acc		Play there with me.
4	1, 6, 8	are	Be S Loc	Loc → Pod	Are you there?
	1, 6, 8	you			
	3, 10		S Aux V Acc		I will play with you.
	11		Be S Acc		Are you with me?
	12		S Aux V Acc		I will go with you.
	14		D S Be		There you are.
5	1	on	SV Loc	Loc → Pr NP	I play on the log.
	1	the			
	1	log			
	4		S Be Loc		You are on the log.
	5, 14		S Aux V Loc	Loc → Pr NP	I will play on the log.
	7, 7		NP	NP → Det N	The log.
	10		Loc	Loc → Pr NP	On the log.

orv	Pages	Words	Structure	Substructure	Sentence
6	4, 7, 10	to	V Dir	Dir → Pr NP	Go to the log.
	11		V Dir Acc	Dir → Pr NP	Go to the log with me.
	12		S Aux V Dir	Dir → Pr NP	I will go to the log.
	13	we	S Be Loc	Loc → Pod	We are there.
	15		S Be		We are.
7	1, 1, 9, 9	Ann	Voc	Voc → Pn	Ann.
	2, 10	it	Aux SVO	O → Pro	Will you play it?
	3, 11		S Aux VO		I will play it.
	5		VO Voc	Voc → Pn	Play it, Ann.
	5, 9		VO		Play it.
8	2	Nat	SV Dir Voc		You go there, Nat.
	5	in	V Dir Voc	Dir → Pr Pod	Go in there, Ann.
	6		S Aux V Dir	Dir → Pr NP	I will go in the log, Nat.
	7, 10		Be S Loc	Loc → Pr Pod	Are you in there?
	8		Aux SV Dir	Dir → Pr NP	Will you go in the log?
	9		S Aux Voc		I will, Nat.
	12		S Aux V Voc		We will play, Nat.
9	3	Tip	S Aux V Acc Voc		I will play with you, Tip.
	7	pit	S Be Loc Acc	Loc → Pr Det N	You are in the pit with me.
	9		S Be Loc Voc		We are in the pit, Nat.
10	2	Snap	Ben	Ben → Pr Pn	To Snap.
	6	sit	V Loc Voc		Sit in the pit, Snap.
	8		V Acc Voc		Sit with me, Snap.
	10		V Loc Voc		Sit there, Snap.
	11		Voc V Loc		Pat, sit in the pit.
	13		SV Loc Voc		You sit there, Pat.

Story	Pages	Words	Structure	Substructure	Sentence
11	3	still	V Man Voc	Man → Adv	Sit still, Ann.
	7	slip	S Aux VO Loc	Loc → Pr Pn	I will slip it on Lil.
	9		V Man		Sit still.
12	12	Lil	Voc V Man		Lil, sit still.
	1, 16	sits	SV Man		Pat sits still.
	8	logs	SV Me	Me → Pr NP	Tip plays with the logs.
13	4	and	SV	S → Pn Con Pn	Pat and Snap go.
	5	did	Do SV Voc		Did you slip, Snap?
	6	land	SV Loc	S → Pn Con Pn	Pat and Snap land in the pit.
	9		Aux SV Loc		Will we land on the log.
	10		SV	S → Pn Con Pn	Snap and Pat slip.
	11		Voc Do SV Loc		Snap, did you land on the log?
	12		Do SV Loc		Did you land in the pit?
	14		Voc V Loc	Voc → Pn Con Pn: Loc → Pr Pro	Pat and Snap, sit on me.
	16		SV	S → Pn Con Pn	Pat and Snap play.
14	5	let	VO	O → SV Acc	Let me play with you.
	6		Aux S VO Dir	O → Pn; Dir → Prt	Will you let Tip in?
	9	tent	Be S Int Loc	S → Pn Con Pn; Int → Adv	Are Ann and Pat still in the tent?
	11	lands	SV Loc	Loc → Pr Pn Con Pn	The tent lands on Pat and Ann.
	13	den	Voc VO Dir	O → Pn Con Pro	Tip, let Pat and me in the den.
	15		S Aux VO	O → SV Acc	I will let you sit with me.

Story	Pages	Words	Structure	Substructure	Sentence
15	3	Tut	VO Voc	O → SV Acc	Let us go with you, Tut.
	5	up	Aux SV Dir Voc	Dir → Prt	Will it go up, Tut?
	6		S Aux V Dir	Dir → Prt	It will go up.
	7		Dir SV	Dir → Prt Prt	Up, up we go.
	8		SV Loc	S → Pn Pn Con Pn	Tut, Lil and Snap play in it.
	10	us	VO	O → SV Loc	Let us land on the log.
	11		VO Loc	O → Pro; Loc → Pod	Land us there.
	15		SV Loc	S → Pn Pn Con Pn	Snap, Lil, and Tut land on the tent.
	16		S Aux V Dir	Dir → Prt Prt Prt	It will go up, up, up.
	16	band	SV S+a	S → Pn Con Pn; Sta → Pr NP	Lil and Nat play in the band.
16	4		VO Voc	O → NP	Play the tub, Bud.
	5		S Aux VO	O → NP	I will play the tub.
	7	tub	Voc VO	O → SVO; O → NP	Tut, let me play the tub.
	9	Bud	SV Sta	Sta → Pr NP	Bud plays in the band.
	9		SV Acc	Acc → Pr Pn Con Pn	Bud plays with Lil and Nat.
	12		S Aux V Sta		I will play in the band.
	14		S' Sta		Tut and Bud play in the band.
	17	must	S Aux V Ctn Dir	Ctn → Prt; Dir → Pr NP	We must go on to the log.

Story	Pages	Words	Structure	Substructure	Sentence
18	1	is	D Be S Loc Voc	Loc → Pr Pro; S → N	There is mud on you, Pat.
	1, 2	a	S Aux VO Loc	Loc → Pr NP	We will put you in a tub.
	2	put	SV0 Loc Voc	Loc → Pod	We put you there, Pat.
	3		Be D Int S Loc	Loc → Pr Pro; Int → Adv	Is there still mud on me?
	4		VO	O → S VO Loc	Let us put Snap in a tub.
	6		D Be Int S Loc Voc	Int → Adv	There is still mud on you, Snap.
	8		D Be S Loc	S → N	There is mud on you.
	10	puts	SV0 Loc		Ann puts Tut in a tub.
19	15		S Aux VO Loc		We will put you in the tubs.
	4	trip	Voc V Sta Acc		Ann, go on a trip with me.
	6	drum	VO Dir Voc		Let me in the drum, Tip.
	8		VO	O → SV Sta	Let me go on a trip.
	10	runs	SV	V → V Con V	Pat runs and runs.
	11		S Be Sta		I am on a trip.
	14		S Be Int Loc		We are still in the drum.
	16		S Be Int Sta		We are still on a trip.
20	3	hill	VO Dir		Help me up the hill.
	6	drums	S Aux VO Me		I will help you with the drums.
	8	help	VO Dir		Help us up the hill.
	14		SV Dir Acc		We go up the hill with him.

Story	Pages	Words	Structure	Substructure	Sentence
21	7	not	S Aux Neg V Loc		Pat must not land there.
	8	stop	S Do Neg VO		Snap did not stop Pat.
	9		S Aux Neg V Loc		Pat must not land in the pit.
	9		VO Voc	O → SVO; O → Pro	Help me stop him, Ann.
	10		S Do Neg V Loc		Pat did not land in the pit.
	10		S Do Neg VO	S → Pn Con Pn	Snap and Ann did not stop him.
	12		Voc S Aux Neg V Loc		Pat, you must not land in the pond.
	15		S Aux Neg V Loc		I will not play in the pond.
22	1	his	SVO Prt	O → NP; NP → Det N	Tip put his tent up.
	3	out	SV Dir	S → Pn Con Pn Con Pn Dir → Prt	Tip and Snap and Tut go out.
	3	has	SVO Acc	O → NP; NP → Det N	Snap has his drum with him.
	7		SV Dir	Dir → Prt	Tip runs out.
	7		SVO Acc	O → Pn; Acc → Pr Pro	Tip has Tut with him.
	9		S Aux Neg VO Dir	Dir → Prt	I will not let you out.
	10		SVO Acc	O → NP; NP → Det N	Snap has the drums with him.
	13		S Aux VO Dir	Dir → Prt	We must let him out.
	14		S Be Sta	Sta → Prt	Tut is out.
	9		S Aux Neg V		The ship will not stop.
23	14	ship	VO Me	Me → Pr NP	Help me with the ship.
	16	smash	S Aux Neg VO	O → SV	We will not let it smash.

Story	Pages	Words	Structure	Substructure	Sentence
24	5	this	S Aux VO Loc	O → Dem	I will put this in.
	10	path	S Be Pve	S → Dem; Pve → NP	This is the path.
25	1	ships	VO	O → NP Loc; Loc → Pr Pod	See the ships out there.
	3	need	S Aux Neg VO		I will not need you.
	9		SVO	O → N	I need help.
	10		SVO Voc		I see you, Bud.
	12		S Int VO		I still need a ship.
	13		S Aux Neg VO		We will not need the tree.
26	2	be	S Aux Be Acc	Acc → Pr Pn	I will be with Bud.
	3		VO	O → S Be Acc; Acc → Pr Pro Con Pn	Let me be with you and Bud.
	4	he	S Aux Be Acc	Acc → Pr Pn	He will be with me.
	6	she	S Aux Be Acc Voc	S → Pro	She will be with you, Pat.
	11		S Be Neg Pve	Pve → Prt	She is not out.
	12		S Be Pve		She is out.
	12		S Aux Be Pve	Pve → Prt	I will be up.
27	1	fun	D Aux Be Pve S	S → Inf Loc; Inf → to V; Loc → Pod	It will be fun to play there.
	4		D Be Pve S	S → Inf Loc; Inf → to Be	It is fun to be on the pond.
	8	Ruff	V VO		Help, see Ruff.

Story	Pages	Words	Structure	Substructure	Sentence
28	2	from	SV Dir Dir	Dir → Pr NP	It runs from the hill to the den.
	5	out of	SV Dir	S → Pn Con Pn; Dir → Pr NP; Pr → Prt Prt	Pat and Dash run out of the den.
	6	all	Voc S Be Quan Sta	Sta → Pr NP	Lil, we are all on a trip.
	8	of	S Be Acc	S → NP; NP → Quan Pr Pro	All of them are with me.
	9		S Be Sta	S → NP; NP → Quan Pr Pro	All of us are on a trip.
	12		S Aux VO Loc	O → Pro Quan	Ruff will put them all in his den.
	14		SV Dir	S → NP; NP → Quan Pr Pro	All of them run from Ruff.
29	16		S Aux Neg VO Loc	O → Pro; Loc → Pr Pro Pr → Prt Prt	We will not let him out of it.
	2	ask	S Aux VO	O → S Inf Acc; Inf → to V	I will ask Pat to go with me.
	3	mask	SV Prt O	O → NP	Pat puts on his mask.
	11	keep	S Aux VO Sta	Sta → Prt	I will keep this mask on.
30	13	keeps	S VO Sta		He keeps his mask on.
	3	wet	S Be Pve	Pve → Adj	We are wet.
	5	swim	VO	O → S Inf Acc	Ask Pat to swim with us.
	6		V Dir Voc	Dir → Prt Pr Pro	Swim out to us, Pat.
	6		D Be Pve S	S → Inf; Inf → to V	It is fun to swim.
	7		D Be Neg Pve S	S → Inf Pve: Inf → to V; Pve → Adj	It is not fun to be wet.
	13		S Be Pve		I am wet.

Story	Pages	Words	Structure	Substructure	Sentence
31	1	camp	SV Dir	Dir → Pr N	We go to camp.
	1		Dir SV		To camp we go.
	4		S Aux V Prt O		You can put up the tent.
	5	cut	VO	O → SVO; O → N	Help me cut logs.
	7		S Be Pve		The logs are cut.
32	2	now	SVO Te	Te → Adv	I see it now.
	4	want	SVO	O → Inf O	I want to see it.
	6		SVO	O → S Inf Sta Acc	We want you to go on a trip with us.
	7		SVO	O → Inf	We want to go.
	7		Aux SV Acc Te	Te → Adv	Can we go with you now?
	9	down	VO	O → NP Con NP Loc Loc → Pr Pod	See the pond and the trees down there.
	10	now	S Aux VO Te	O → NP Con N; Te → Adv	I can see the camp and tent now.
	11		SVO	O → S Inf Man; Man → Prt Con Prt	We want the ship to go up and down.
	12		SVO	O → Inf Dir; Dir → Prt	We want to go down now.
	14		S Aux V Te		We must go now.
	15		S Aux V Dir Te	Te → Adv	The ship will go up now.

Story	Pages	Words	Structure	Substructure	Sentence
33	2	in back of	SV Dir	Dir → Pr NP; Pr → Prt Prt Prt	Ruff runs in back of the rock.
	2	trick	SVO	O → Inf O; O → Pn Con Pn	He wants to trick Lil and Dash.
	3	rock	S Be Loc	Loc → Pr NP; Pr → Prt Prt Prt	He is in back of the rock.
	6	back	S Aux Be Sta	Sta → Prt	I will be back.
	8		S Aux Neg Be Sta	Sta → Prt	He will not be back.
	10		SV Dir	Dir → Pr NP; Pr → Prt Prt Prt	Dash went in back of a rock.
	10		SV Dir Pur	Pur → Inf O	He went there to trick Ruff.
	16		SVO Sta Te	Sta → Adv; Te → Adv	Lil has the tub back now.
34	1	dig	VO	O → SVO Prt	Let us dig them out.
	3		VO	O → SVO Prt	Help me dig it out.
	4	glad	S Aux Be Pve	Pve → Adj Inf O Me	I will be glad to help you with it.
	7	grass	SVO Loc	O → NP; NP → Quan Det N	Dash put all the rocks on the grass.
	13	rocks	S Aux VO Loc	Loc → Pr Dem	We can put the rocks in this.
	14		SVO Sta	O → NP; NP → Quan Pr Det N	Tut has all of his rocks back.

Story	Pages	Words	Structure	Substructure	Sentence
35	1	jump	SVO	O → Inf Man; Man → Prt Con Prt	I want to jump up and down.
	3		S Aux V Acc Te	Aux → Auxneg	I cannot jump with you now.
	4	job	Voc SVO Me		Dash, I need help with this job.
	5	just	Qual VO	O → SV; Qual → Adv	Just let me jump.
	8		Qual VO	O → SV	Just let me play.
	11		Qual V Man	Man → Adj	Just keep still.
	13, 15		SVO	V → Do	We did the job.
36	2, 9	yet	Neg Te Voc	Te → Adv	Not yet, Tip.
	2		S Aux Neg V Te		You must not jump yet.
	7		Neg Te Voc Neg Te		Not yet, Tip not yet.
	8	yells	SVO VS	O → Inf	I want to jump, yells Tip.
	12	yes	Ijn S Aux Voc		Yes, you can, Tip.
	13		Ijn S Aux	,	Ves, I will.
	14		Dir SV VS	Dir → Prt	Down I go, yells Tip.
37	16		Ijn S Be		Yes, I am.
	2	next	S Aux Be Loc Pve	Pve → Adj	You will be out there next.
	4	fix	Do SVO Te		Did you fix the box yet?
	5	box	S Aux Be Sta Pve	Pve → Adj	I can be on next.
	9		S Aux VO	O → NP Me Loc	I will cut the box with Ruff in it.

APPENDIX 6
NEW WORD-OLD STRUCTURE

APPENDIX 6

NEW WORD-OLD STRUCTURE

Story	Pages	Words	Structure	Substructure	Sentences
2	1	play	S Aux V		I will play.
	4, 4		V		Play.
4	2	you	Aux SV		Will you play?
6	2	we	S Aux V Dir		We will go there.
	6		SV		We go.
	4		S Aux V Loc	Loc → Pod	We will play there.
	16		SV Loc	Loc → Pr NP	We play on the log.
7	4	Ann	S Aux V	S → Pn	Ann will play.
	6	Ann	S Aux V Acc	Acc → Pr Pn	I will play with Ann.
8	1	Nat	S Aux V Acc		Ann will play with Nat.
	4	in	S Aux V Dir	Dir → Pr NP	It will go in the log.
9	1	Tip	S Aux V Acc		Nat will play with Tip.
	2, 5, 5, 8, 11	Pat	Voc		Pat.
	4, 4, 6, 6, 8, 11	Tip	Voc		Tip.
	5	pit	Be S Loc		Are you in the pit?
10	12	sit	S Aux V Acc		I will sit with you.
11	3	slip	S Aux V		You will slip.
	4, 4	Lil	Voc		Lil.
	5		V Loc Voc		Sit there, Lil.
	6		S Aux V Acc		I will play with Lil.
	9		S Aux V Voc		You will slip, Lil.
	12		S Aux V		We will slip.

Story	Pages	Words	Structure	Substructure	Sentences
12	2	plays	SV		Lil plays.
	3	logs	SV Loc	Loc → Pr NP	Lil plays on the logs.
	4	slips	SV		Lil slips.
	6	sits	SV		Lil sits.
	9		SV Loc	Loc → Pod	Pat sits there.
	10		SV		The log slips.
	12		SV		Tip sits.
	15		SV Loc	Loc → Pr NP	Tip sits on the logs.
	16		SV Acc		Lil sits with Tip.
14	1	tent	S Aux V Loc	Loc → Pr NP	I will play in the tent.
	4		Be S Loc	S → Pn Con Pn	Are Ann and Pat in the tent.
	7		S Be Loc		We are in the tent.
	8	den	S Aux V Dir		I will go to the den.
	10		S Aux V		The tent will slip.
	12		S Aux V Dir		We will go to the den.
	16		S Be Loc Acc	S → Pn Con Pn	Pat and Ann are in the den with Tip.
15	1	up	S Aux V Dir	Dir → Pr Pod	I will go up there.
	12	us	V Acc	Acc → Pr Pn	Sit with us.
	14	Tut	SV	S → Pn Con Pn	Tut and Lil slip.
16	1	band	D Be S	S → NP	There is the band.
	3, 3	Bud	Voc		Bud!
	6	tub	SV Loc	Loc → Pr NP	Tut sits in the tub.
	11		SV Loc	Loc → Pr Pn	Tut lands on Bud.

Story	Pages	Words	Structure	Substructure	Sentences
17	1	must	S Aux V Dir	Dir → Pr NP	You must go to the log.
	3		S Aux V Acc		You must go with Ann.
	6		S Aux V		I must sit.
	8	mud	SV Loc	S → Pn Con Pn	Tut lands in the mud.
	9	am	S Be Loc		I am in the mud.
	10		S Be Loc Acc		I am in the mud with you.
	11		SV Loc		Lil and Tut sit in the mud.
	13		S Be Loc Acc		I am in the mud with Lil.
	14		S Be Loc Acc		I am on the log with Ann.
18	5	is	S Be Loc	S → Pn Con Pn	Snap is in a tub.
	5	a	S Be Loc		Pat is in a tub.
	11	Tut	Be S Loc		Is Tut in the tub?
	11	he	Be S Int Loc		Is Tut still in the tub?
	13		S Be Loc		Tut is in the tub.
	16	tubs	S Be Loc		Ann and Lil are in the tubs.
19	1	trip	S Aux V Sta		I will go on a trip.
	2	drum	S Aux V Loc		I will sit in the drum.
	3		S Be Loc		Tip is in the drum.
	5	run	V Voc V		Run, Ann, run!
	7		S Be Loc Acc	Dir → Pr Pro	Ann is in the drum with Tip.
	9		V Dir Voc		Run to us, Pat.
	11		S Be Loc		I am in the drum.
	13		SV Loc		The drum lands in the mud.

Story	Pages	Words	Structure	Substructure	Sentences
20	1	hill	S Aux V Dir	Dir → Pr NP	I must go up the hill.
	2, 9	drums	SV		The drums slip.
	3	help	VO Voc		Help me, Lil.
	4		S Aux VO		I will help Snap.
	4	him	S Aux V Dir	Dir → Pr Pro	I will run to him.
	5		SV Dir		Lil runs to him.
	7		S Aux V Dir		We must go up the hill.
	8		VO Voc		Help us, Ann.
	10		Aux SVO		Will Nat help us?
	11		S Aux VO		I will help you.
	11		VO Loc		Put the drums on me.
	12		SVO Loc		Snap puts the drums on Nat.
	12		SVO	S → Pn Con Pn	Ann and Lil help him.
	13		V Loc		Sit on the drums.
	13		S Aux V Dir		We will go up the hill.
21	2	pond	S Aux V Dir		I will go to the pond.
	5	stop	VO		Stop me.
	5		S Aux VO		I will stop you.
	11		S Be Loc		The log is in the pond.
	13		SV Loc		Pat lands in the pond.
	14	helps	SVO		Tut helps Pat.

Story	Pages	Words	Structure	Substructure	Sentences
22	2	his	S Be Loc	Loc → Pr NP; NP → Det N	Tip is in his tent.
	2	has	SVO	O → NP; NP → Det N	Snap has his drum.
	8, 8	out	VO Dir	Dir → Prt	Let me out.
	11		SV Loc	Loc → Pr NP; NP → Det N	Tip sits on his drum.
	11		SV Loc	Loc → Pr NP; NP → Det N	Snap sits on his drum.
	12		SVO		Tut has it.
	14		SVO	NP → Det N	Tut plays his drum.
23	1	ship	SVO		Pat has a ship.
	1		SV Loc		Pat sits on his ship.
	2	Dash	S Be Loc		Dash is in the pond.
	3, 3, 8, 8		Voc		Dash!
	5		S Be Loc		Dash is on the ship.
	6		SV Acc		Dash sits with Pat.
	7		SV Loc		Pat plays on the ship.
	7		SV Acc		Dash plays with him.
	8		VO		Stop the ship.
	8		S Aux V		We will smash.
	9	smash	S Aux V		It will smash.
	10		S Aux VO		The ship will smash us.
	11		SV Loc	S → Pn Con Pn	Pat and Dash land in the pond.
	13		S Aux V Dir		We must go to the ship.
	15		VO	O → SV Dir	Let us go on the ship.
	16		S Be Loc		The ship is in the pond.

Story	Pages	Words	Structure	Substructure	Sentences
24	1	this	VO Me	Me → Pr NP; NP → Det N	Help me with this tub.
	2	path	SV Dir	S → Pn Con Pn	Pat and Nat go up the path.
	8		S Aux VO		We must stop them.
	9		Do SV Dir	S → Pn Con Pn Dir → Pr NP; NP → Det N	Did Dash and Snap go up this path?
	10	them	VO		Stop them.
	12	stops	SVO		Nat stops them.
	14		V Dir		Go up the path.
	16		SV Acc	S → Pn Con Pn Acc → Pr Pro	Snap and Dash sit with them.
25	2	need	SVO		I need a ship.
	4	tree	SVO		I see a tree.
	4		SVO		I need it.
	6		S Aux VO		The tree will smash me.
	8	needs	SVO		Bud needs me.
	9	see	SVO		See the tree.
26	2	he	S Aux V Acc		He will play with me.
	13		S Aux VO		He will smash it.

Story	Pages	Words	Structure	Substructure	Sentences
27	2	fun	SVO	O → N	Dash has fun.
	2		SVO Acc		Ann has fun with him.
	3	sees	SVO		Ruff sees them.
	5	Ruff	SV		Ann fell.
	5	fell	SV		Dash fell.
	6		SV	S → Pn Con Pn	Ann and Dash fell.
	11		SVO		Ruff has Dash.
	12		VO		See Ruff.
	12		SV		He fell.
	13		SV Loc		Ruff fell in the pond.
	15		S Aux Neg VO Loc		Ruff will not put us in a den.
28	2	sm	SVO Loc	Loc → Pr NP	Snap sees it from his tree.
	3		SV Dir	Dir → Pr NP	Snap runs from the tree.
	7		SV Dir		Lil runs from the log.
29	1	mask	SVO	O → NP	Lil has a mask.
	4	keep	V Loc Voc		Keep on this path, Lil.
	6		Be S Loc		Is Ruff in the mask?
	6	ask	VO Voc	O → Pro	Ask him, Pat.
	7		S Aux Neg VO		I will not ask him.
	7		SVO Voc		You ask him, Lil.
	10		SVO		Ruff has a mask.
16	keep	S Aux Vo Loc	Loc → Pr NP; Pr → Prt Prt	We will keep him out of this tent.	

Story	Pages	Words	Structure	Substructure	Sentences
30	1	went	SV Dir		Tut went to the pond.
	1		SV Acc		Ann went with him.
	2	swim	S Aux V		We will swim.
	2		S Aux V Loc		We will swim in the pond.
	4		SV Dir		Pat went to the pond.
	7		S Aux Neg V		I will not swim.
	8		S Aux VO	O → SV	I will help you swim.
	12		SV Dir		Pat went in.
31	2	can	S Aux V Loc		We can camp there.
	6	cut	SVO	O → SVO; O → NP	Pat can help you cut the logs.
	16	camp	S Aux V Acc		You can camp with us.
32	3	down	SV Dir Loc	Loc → Pr NP	It went down in a pit.
	4		V Dir Acc	Dir → Prt NP	Pun down there with me.
	13		S Aux VO Loc	Loc → Prt NP	We will land it down there.
33	4	trick	S Aux VO		I will trick them.
	9		S Aux VO		I must trick Ruff.

Story	Pages	Words	Structure	Substructure	Sentences
34	1	rocks	D Be S Loc		There are rocks in this pit.
	2	dig	SV Loc	S → Pn Con Pn	Dash and Tut dig in the pit.
	5	glad	S Be Pve	S → Pn Con Pn Pve → Adj	Dash and Tut are glad.
	6		S Aux VO Loc	Loc → Pr Pod	I will put the rocks up there.
	8	grass	SVO Loc		Ruff sees the rocks on the grass.
	9		SVO	O → Inf O	I want to keep the rocks.
	10		SV Loc		The rocks fell on the grass.
	11		S Be Neg Loc		The rocks are not on the grass.
	12		SVO		I see the rocks.
	12		VO Me		Help me with the rocks.
	14		S Be Pve	S → Pn Con Pn Pve → Adj	Tut and Dash are glad.
	15		S Be Neg Pve		Ruff is not glad.
35	2	jump	V Acc		Jump with me.
	5		SVO	O → Inf	I want to jump.
	6	job	SVO Me		He needs help with his job.

Story	Pages	Words	Structure	Substructure	Sentences
36	2	yell	SV	S → Pn Con Pn	Ann and Dash yell.
	5		Voc S Aux Neg V		Tip, you must not yell.
	7		SV	S → Pn Con Pn	Ann and Nat yell.
37	1	box	SVO	Pve → Adj	Tip has a box.
	1	fix	S Aux VO		He will fix it.
	3		S Aux VO		I must fix this box.
	4	next	S Be Pve		You are next.
	5		S Be Pve		Tip is next.
	7		V Loc		Sit in this box.
	8		S Be Loc		Puff is in the box.
	11		S Aux VO		I will cut the box.

APPENDIX 7
OLD WORDS-NEW STRUCTURE

APPENDIX 7

OLD WORDS-NEW STRUCTURE

Story	Pages	Structure	Substructure	Sentences
5	8, 12	V Dir	Dir → Pod	Go there.
	10	Loc	Loc → Pod	There.
	13	SV Loc	Loc → Pod	You play there.
6	1	Aux SV Acc		Will you play with me?
9	10	S Be		You are?
10	1	Be S Loc Voc	Loc → Pod	Are you there, Ann?
	4	Voc	Voc → Pn Pn	Ann, Ann.
	5	V Dir	Dir → Pr Pn	Go to Pat.
	7	Be S Loc Voc	Loc → Pr NP	Are you in the pit, Ann?
11	1	S Aux V Loc	Loc → Pr Pn	Ann will sit on Nat.
	2	V Voc		Go, Nat.
	14	D S Be Voc		There you are, Tip.
	15	S Aux V Loc Voc	Loc → Pr Pro	We will sit on you, Tip.
12	13	Voc V Acc		Tip, go with Lil.
14	2	Do SV Dir	Dir → Pr Pod	Did Ann go in there?
	14	V Dir	Dir → Prt	Go in.
15	4	V Loc Acc Voc	Voc → Pn Con Pn	Sit in it with me, Snap and Lil.
17	7	SV Ctn	S → Pn Con Pn; Ctn → Prt Con Prt	Lil and Tut go on and on.
	9	VO Dir	O → Pro; Dir → Prt	Let me up.
	13	VO Dir		Let us up.
18	7	V Voc V		Go, Pat, go.
	14	V Voc V		Go, Tut, go.

Story	Pages	Structure	Substructure	Sentences
19	14	VO	O → SV Ctn; Ctn → Prt	Let us go on.
21	3	SV	S → Pn Con Pn; V → V Con V	Pat and Snap run and play.
	15	S Aux V Loc	Loc → Pr N;	I will sit on land.
22	2	S Be Acc		Tut is with him.
	4	S Aux V Acc	Acc → Pr NP; NP → Det N	We will go with the band.
	6	V Dir Con V	Dir → Pr Pod	Go in there and sit.
24	7	S Be Neg Loc		The tub is not there.
	12	SV Dir	Dir → Pr Pn Con Pn	Nat runs to Dash and Snap.
	13	Voc VO Me	Me → Pr Pn Con Pn	Pat, help me with Snap and Dash.
25	11	SVO Prt		Lil helps Bud out.
	14	S Aux V Loc Loc		We will go on the pond in it.
26	1	S Aux V Me	Me → Pr Pro	We will play with it.
	7	Voc S Be Pve	Pve → Prt	Ann, you are up.
	8	SVO Voc		You did it, Ann.
	9	S Be Pve	Pve → Prt	Ann is out.
	10	S Be Neg Pve	Pve → Prt	I am not out.
	13	S Be Pve	Pve → Prt	Tip is up.
	16	S Be Pve Voc	Pve → Prt	You are out, Tip.
28	4	S Be Sta	Sta → Pr NP	I am on a trip.

Story	Pages	Structure	Substructure	Sentences
29	5	SVO	O → SV Dir; Dir → Prt	Ruff sees them go in.
	8	Be S Pve	Pve → Pn	Are you Ruff?
	9	S Be Neg Pve	Pve → Pn	I am not Ruff.
	10	S Be Pve		I am Tip.
	14	S Be Pve		He is Tip.
	15	S Be Neg Pve		He is not Tip.
	15	S Be Pve		I am Tip.
	15	S Aux Be Pve		He must be Ruff.
30	3	S Be Pve	Pve → N	This is fun.
	10	S Aux V Dir Man		I will go in with a mask.
31	2	S Aux V Prt O		He will put up the tent.
	3	VO Voc	O → SV Prt O	Help us put up the tent, Tip
32	3	S Do V		The ship did land.
	6	S Be Dir	Dir → Pr NP Loc; Loc → Pr Pod	We are from a land out there.
	11	S Aux Be Pve		It will be fun.
33	1	SVO	S → Pn Con Pn: O → Inf Dir; Dir → Pr NP	Dash and Lil want to go on the ship.
	3	S Aux VO	O → S Inf O; O → Pro	I will ask him to help us.

Story	Pages	Structure	Substructure	Sentences
36	5	S Aux VO Te	Aux → Auxneg	I cannot help you now.
	8	S Aux VO Te Voc	Aux → Auxneg	I cannot help you now, Snap.
	10	VO Dir	Dir → Prt Pr NP	Help me down from this tree.
	12	S Be Pve	Pve → Adj Inf Loc; Loc → Pr NP; Pr → Prt Prt	I am glad to be out of the tree.
	12	S Aux VO	O → SV Prt O	I will help you dig up the rock.
	14	Te S Aux VO Voc	O → SVO	Now I will help you cut the grass, Snap.
	16	Te S Aux Quan V		Now we can all play.
	1	S Aux Quan V		We will all jump.
	6	Aux SVO Te	O → SV	Will you let me jump now?
	9	Quan Be Man		Just be still.
	10	Te Voc		Now, Tip.
	10	V Te		Jump now.
	11	S Aux V Te Voc	Aux → Auxneg	I cannot jump now, Nat.
	12	Aux SV Te		Will you jump now?
	15	Be S Pve Voc	Pve → Adj Inf Sta Loc	Are you glad to be back down, Tip?
37	1	S Aux VO Me		He will play a trick with it.
	5	Ijn Voc		Yes, Bud.
	16	S Be Pve	Pve → Adj Inf Loc; Loc → Pr Pod; Pr → Prt Prt	I am glad to be out of there.

APPENDIX 8

SUPFACE STRUCTURES OF SENTENCES USED IN THE MOD 2 KG STORIES

APPENDIX 8

SURFACE STRUCTURES OF SENTENCES USED
IN THE MOD 2 KG STORIES

Story	Page	Structure	Substructure
2	9	DSV	S → Pro
1	1	SV	
13	4	SV	S → Pn Con Pn
19	10	SV	V → V Con V
5	1	SV Loc	Loc → Pr NP
13	6	SV Loc	S → Pn Con Pn
15	8	SV Loc	S → Pn Pn Con Pn; Loc → Pr Pro
14	11	SV Loc	Loc → Pr Pn Con Pn
10	13	SV Loc Voc	
31	1	SV Dir	Dir → Pr N
22	7	SV Dir	Dir → Prt
28	5	SV Dir	Dir → Pr NP; Pr → Prt Prt
33	2	SV Dir	Dir → Pr NP; Pr → Prt Prt Prt
28	14	SV Dir	S → Quan Pr Pro
22	3	SV Dir	S → Pn Con Pn Con Pn
24	12	SV Dir	Dir → Pr Pn Con Pn
8	2	SV Dir Voc	Dir → Pod
31	1	Dir SV	Dir → Pr N
15	7	Dir SV	Dir → Prt Prt
28	1	SV Dir Dir	Dir → Pr NP
20	14	SV Dir Acc	
33	10	SV Dir Pur	Pur → Inf O; O → Pn

Story	Page	Structure	Substructure
16	9	SV Acc	Acc → Pr Pn Con Pn
17	7	SV Ctn	Ctn → Prt Con Prt
12	8	SV Me	Me → Pr NP
12	1	SV Man	Man → Adv
16	9	SV Sta	Sta → Pr NP
21	3	SV	S → Pn Con Pn: V → V Con V
1	6	S Aux	
8	9	S Aux Voc	
1	2	S Aux V	
8	12	S Aux V Voc	
2	1	S Aux V Loc	Loc → Pod
5	5	S Aux V Loc	Loc → Pr NP
11	1	S Aux V Loc	Loc → Pr Pn
21	15	S Aux V Loc	Loc → Pr N
25	14	S Aux V Loc Loc	
11	15	S Aux V Loc Voc	Loc → Pr Pro

Story	Page	Structure	Substructure
2	3	S Aux V Dir	Dir → Pod
6	12	S Aux V Dir	Dir → Pr NP
15	6	S Aux V Dir	Dir → Prt
15	16	S Aux V Dir	Dir → Prt Prt Prt
8	6	S Aux V Dir Voc	
32	15	S Aux V Dir Dir	Dir → Prt; Dir → Pr NP Loc: Loc → Pr Pod
17	11	S Aux V Ctn Dir	Ctn → Prt
30	10	S Aux V Dir Me	
32	15	S Aux V Dir Te	
4	3	S Aux V Acc	Acc → Pr Pro
22	4	S Aux V Acc	Acc → Pr NP
9	3	S Aux V Acc Voc	
16	12	S Aux V Sta	Sta → Pr NP
32	14	S Aux V Te	
36	1	S Aux Int V	
35	16	Te S Aux Int V	
1	4	Aux SV	
13	9	Aux SV Loc	
8	8	Aux SV Dir	
15	5	Aux SV Dir Voc	

Story	Page	Structure	Substructure
6	1	Aux SV Acc	
36	12	Aux SV Te	
32	7	Aux SV Acc Te	
1	5	V	
11	2	V Voc	
18	7	V Voc V	
2	6	V Loc	Loc → Pod
10	6	V Loc Voc	Loc → Pr NP
10	11	Voc V Loc	
13	14	Voc V Loc	Voc → Pn Con Pn
3	4	V Loc Acc	Acc → Pr Pro
15	4	V Loc Acc Voc	
5	8	V Dir	Dir → Pod
6	4	V Dir	Dir → Pr NP
10	5	V Dir	Dir → Pr Pn
14	14	V Dir	Dir → Prc
8	5	V Dir Voc	Dir → Pr Pod
30	6	V Dir Voc	Dir → Prt Pr Pro
6	11	V Dir Acc	

Story	Page	Structure	Substructure
3	2	V Acc	Acc → Pr Pro
10	8	V Acc Voc	
12	13	Voc V Acc	Acc → Pr Pn
11	9	V Man	
11	3	V Man Voc	
11	12	Voc V Man	
35	11	Qual V Man	
19	4	Voc V Sta Acc	Sta → Pr NP
36	11	V Te	
22	6	V Dir Con V	

Story	Page	Structure	Substructure
26	2	S Aux Be Acc	
26	6	S Aux Be Acc Voc	
33	6	S Aux Be Sta	Sta → Prt
37	5	S Aux Be Sta Pve	/
29	15	S Aux Be Pve	Pve → Pn
26	12	S Aux Be Pve	Pve → Prt
37	2	S Aux Be Loc Pve	
34	4	S Aux Be Pve	Pve → Adj Inf O Me
32	11	D Aux Be S	S → N
27	1	D Aux Be Pve S	S → Inf Loc
26	9	S Be Pve	Pve → Prt
24	10	S Be Pve	Pve → NP
29	10	S Be Pve	Pve → Pn
30	3	S Be Pve	Pve → Adj
30	3	S Be Pve	Pve → N
26	7	Voc S Be Pve	Pve → Prt
26	16	S Be Pve Voc	
33	12	S Be Pve	Pve → Adj Inf Loc; Loc → Pr NP; Pr → Prt Prt
37	16	S Be Pve	Pve → Adj Inf Loc; Loc → Pr Pod; Pr → Prt Prt

Story	Page	Structure	Substructure
26	2	S Aux Be Acc	
26	6	S Aux Be Acc Voc	
33	6	S Aux Be Sta	Sta → Prt
37	5	S Aux Be Sta Pve	/
29	15	S Aux Be Pve	Pve → Pn
26	12	S Aux Be Pve	Pve → Prt
37	2	S Aux Be Loc Pve	
34	4	S Aux Be Pve	Pve → Adj Inf O Me
32	11	D Aux Be S	S → N
27	1	D Aux Be Pve S	S → Inf Loc
26	9	S Be Pve	Pve → Prt
24	10	S Be Pve	Pve → NP
29	10	S Be Pve	Pve → Pn
30	3	S Be Pve	Pve → Adj
30	3	S Be Pve	Pve → N
26	7	Voc S Be Pve	Pve → Prt
26	16	S Be Pve Voc	
33	12	S Be Pve	Pve → Adj Inf Loc; Loc → Pr NP; Pr → Prt Prt
37	16	S Be Pve	Pve → Adj Inf Loc; Loc → Pr Pod; Pr → Prt Prt

Story	Page	Structure	Substructure
9	10	S Be *	
4	1	Be S Loc	Loc → Pod
8	7	Be S Loc	Loc → Pr Pod
10	1	Be S Loc Voc	Loc → Pod
10	7	Be S Loc Voc	Loc → Pr NP
14	9	Be S Int Loc	
29	8	Be S Pve	Pve → Pn
36	15	Be S Pve Voc	Pve → Adj Inf Sta Loc
18	3	Be D Int S Loc	S → N; Loc → Pr Pro
36	9	Qual Be Man	

*This structure is listed a second time since it is used as a question here.

Story	Page	Structure	Substructure
25	9	SVO	O → N
35	13	SVO	V → Do: O → NP
25	10	SVO Voc	O → Pro
25	12	S Int VO	
18	10	SVO Loc	Loc → Pr NP; O → Pn
34	7	SVO Loc	O → NP; NP → Quan Det N
18	2	SVO Loc Voc	Loc → Pod
22	3	SVO Acc	Acc → Pr Pro; O → NP
32	2	SVO Te	
35	4	Voc SVO Me	
29	13	SVO Sta	
33	16	SVO Sta Te	
32	7	SVO	O → Inf
33	1	SVO	O → Inf Dir
32	12	SVO Te	O → Inf Dir
35	1	SVO	O → Inf Man; Man → Prt Con Prt
32	4	SVO	O → Inf O; O → Pro
33	2	SVO	O → Inf O; O → Pn Con Pn

Story	Page	Structure	Substructure
29	5	SV0	0 → SV Dir
32	6	SV0	0 → S Inf Sta Acc
32	11	SV0	0 → S Inf Man; Man → Prt Con Prt
7	3	S Aux VO	0 → Pro
11	7	S Aux VO Loc	Loc → Pr Pn
18	1	S Aux VO Loc	Loc → Pr NP
34	13	S Aux VO Loc	Loc → Pr Dem
24	5	S Aux VO Loc	Loc → Prt
28	12	S Aux VO Loc	0 → Pro Int; Int → Adj
24	5	S Aux VO Dir	D → Dem; Dir → Prt
35	3	S Aux V Dir C	Dir → Prt
20	6	S Aux VO Me	
31	2	S Aux V Prt C	
20	11	S Aux VO Sta	
32	10	S Aux VO Te	0 → NP Con N
37	4	S Aux VO	0 → NP Me Loc
33	3	S Aux VO	0 → S Inf 0; 0 → Pro
29	2	S Aux VO	0 → S Inf Acc

Story	Page	Structure	Substructure
35	12	S Aux VO	O → SV Dir O
14	15	S Aux VO	O → SV Acc
35	14	Te S Aux VO Voc	O → SVO
7	2	Aux SVO	
14	6	Aux SVO Dir	Dir → Prt
36	6	Aux SVO Te	O → SV
7	5	VO	O → Pro
32	9	VO	O → NP Con NP Loc; Loc → Pr Pod
25	1	VO	O → NP Loc; Loc → Pr Pod
7	5	VO Voc	
15	1	VO Loc	Loc → Pod
19	6	VO Loc Voc	O → Pro; Loc → Pr NP
14	13	Voc VO Loc	O → Pn Con Pro
17	9	VO Dir	Dir → Prt
20	3	VO Dir	Dir → Pr NP
35	10	VO Dir	Dir → Prt Pr NP; NP → Det N
24	1	VO Me	Me → Pr NP
24	13	Voc VO Me	Me → Pr Pn Con Pn
26	3	VO	O → S Be Acc; Acc → Pr Pro Con Pn

Story	Page	Structure	Substructure
35	5	Qual VO	O → SV
15	10	VO	O → SV Loc
14	5	VO	O → SV Acc
15	3	VO Voc	O → SV Acc
19	8	VO	O → SV Sta
19	14	VO	O → SV Ctn; Ctn → Prt
31	5	VO	O → SVO; O → N
21	9	VO Voc	O → SVO; O → Pro
16	7	Voc VO	O → SVO; O → NP
18	4	VO	O → SVO Loc
34	1	VO	O → SVO Dir
31	3	VO Voc	O → SV Prt O
30	5	VO	O → S Inf Acc

Story	Page	Structure	Substructure
13	5	Do SV Voc	
13	12	Do SV Loc	
13	11	Voc Do SV Loc	
14	2	Do SV Dir	
37	4	Do SVO Te	
32	3	S Do V	
35	13	S VO	V → Do
21	8	S Do Neg VO	
21	10	S Do Neg V Loc	
23	9	S Aux Neg V	
21	7	S Aux Neg V Loc	
21	12	Voc S Aux Neg V Loc	
36	2	S Aux Neg V Te	
25	13	S Aux Neg VO	O → NP
25	3	S Aux Neg VO	O → Pro
23	6	S Aux Neg VO	O → SV
28	16	S Aux Neg VO Loc	O → Pro; Loc → Pr Pro; Pr → Prt Prt

Story	Page	Structure	Substructure
22	9	S Aux Neg VO Dir	
36	11	S Aux V Te Voc	Aux → Auxneg
35	3	S Aux V Acc Te	Aux → Auxneg
35	8	S Aux VO Te Voc	Aux → Auxneg
26	10	S Be Neg Pve	Pve → Prt
29	9	S Be Neg Pve	Pve → Pn
24	7	S Be Neg Loc	
33	8	S Aux Neg Be Sta	Sta → Prt
30	7	D Be Neg Pve S	S → Inf Pve; Pve → Adj
36	2	Neg Te Voc	
36	7	Neg Te Voc Neg Te	
7	1	Voc	
10	4	Voc	Voc → Pn Pn
5	10	Loc → Pod	
5	10	Loc → Pr NP	
5	7	NP → Det N	
10	2	Ben → Pr Pn	
36	10	Te Voc	

Story	Page	Structure	Substructure
37	5	Ijn Voc	
36	16	Ijn S Be	
36	13	Ijn S Aux	
36	12	Ijn S Aux Voc	
36	14	Dir SV VC	
27	8	V VO	
36	8	SV O VS	O → Inf

APPENDIX 9
RECOMMENDED STRUCTURAL CONTEXTS FOR INITIAL
INSTRUCTION ON NEW WORDS

APPENDIX 9

RECOMMENDED STRUCTURAL CONTEXTS FOR INITIAL
INSTRUCTION ON NEW WORDS

Word Class	Element	Standard Context	Additional Context
Noun	$S \rightarrow \begin{Bmatrix} NP \\ Pro \end{Bmatrix} ; NP \rightarrow Det N$	SV	SV Me
Pn	$\begin{Bmatrix} Pn \\ N \end{Bmatrix}$	SVO	
Pro		SV Loc	
		SV Dir	
		SV Acc	
	$O \rightarrow \begin{Bmatrix} NP \\ Pro \\ Pn \\ N \end{Bmatrix} ; NP \rightarrow Det N$	SVO	SVO Dir
		SVO Loc	SVO Me
			SVO Acc
			SVO Ben
	$Pr \rightarrow \begin{Bmatrix} NP \\ Pro \\ Pn \\ N \end{Bmatrix} ; NP \rightarrow Det N$	SV(0) Loc	SV(0) Me
		SV(0) Dir	SV(0) Ben
		SV(0) Acc	SV Sta
			SV Man
	Pve $\rightarrow NP$; $NP \rightarrow Det N$	S Be Pve	
Pro Adverb	$\begin{Bmatrix} Dir \\ Loc \end{Bmatrix} \rightarrow (Pr) Pod$	SV(0) Dir	SV(0) Dir
		SV(0) Loc	SV(0) Loc
		where	where
		$\begin{Bmatrix} Dir \\ Loc \end{Bmatrix} \rightarrow Pod$	$\begin{Bmatrix} Dir \\ Loc \end{Bmatrix} \rightarrow Pr Pod$

Word Class	Element	Standard Context	Additional Context
Determiner	$\begin{Bmatrix} S \\ O \end{Bmatrix} \rightarrow NP; NP \rightarrow Det N$ $PP \rightarrow Pr NP; NP \rightarrow Det N$	SV(O) PP	
	$\begin{Bmatrix} S \\ Pve \end{Bmatrix} \rightarrow NP; NP \rightarrow Det N$	S Be Pve	
Adverb	$\begin{Bmatrix} Man \\ Te \end{Bmatrix} \rightarrow Adv$	SV(O) Man SV(O) Te	Te SV(O)
Adjective	Pve $\rightarrow Adj$	S Be Pve	
Preposition	PP $\rightarrow Pr NP$	SV(O) PP	SV(O) PP $\left\{ \begin{array}{l} \text{where } PP \rightarrow Pr NP \\ \text{where } Pr \rightarrow Prt Prt (Prt) \end{array} \right\}$
Particle	$\begin{Bmatrix} Dir \\ Loc \end{Bmatrix} \rightarrow Prt$		SV(O) $\begin{Bmatrix} Dir \\ Loc \end{Bmatrix}$ where $\begin{Bmatrix} Dir \\ Loc \end{Bmatrix} \rightarrow Prt$

APPENDIX 10
RECOMMENDED STRUCTURAL CONTEXTS FOR VERBS
USED IN MOD 2 KG STORIES

APPENDIX 10

RECOMMENDED STRUCTURAL CONTEXTS FOR VERBS
USED IN MOD 2 KG STORIES

Verbs to be Used in SV (PP) Context	Verbs to be Used in SVO (PP) Context	Verbs to be Used in SV (PP) or SVO (PP) Context
<u>Intransitive</u>	<u>Transitive</u>	<u>Both</u>
camp	ask	dig
fell	cut	
go, went	fix	land
sit	has	play
yell	help	
jump	keep	stop
run	let	
swim	need	
	put	
	see	
	smash	
	trick	
	want	

References

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